



An **SAIC** company

## r.e. wright environmental, inc.

July 25, 1995

Mr. William D. Steuteville  
On-Scene Coordinator  
Superfund Removal Branch  
U.S. Environmental Protection Agency  
Region III  
841 Chestnut Building  
Philadelphia, PA 19107-4431

Re: Rogers Electric Site  
Cheverly, Maryland  
REWEI Project M95239

Dear Mr. Steuteville:

On July 13, 1995, R. E. Wright Environmental Inc. (REWEI) performed surface soil and asphalt chip sampling at the referenced site. The sampling was performed in response to your request that we sample for residual polychlorinated biphenyl (PCB) contamination outside the north and west fences at the site.

To evaluate whether PCBs remain in the two areas, fifteen samples were collected at sample locations designated by you and Mr. Tim Gardner of REWEI. The samples were collected at fifteen foot intervals as shown on the attached figure.

The samples were logged onto a chain-of-custody form, preserved with ice, and delivered to Maryland Spectral Services, Inc. (MSSI) in Baltimore, Maryland. MSSI analyzed the samples for the presence of PCBs by EPA Method 8080.

The results of the analyses indicate the presence of PCBs above laboratory quantification levels in twelve of the fifteen samples. Of the twelve samples that tested positive for PCBs, two contained concentrations slightly above the ten parts per million (10 ppm) action level for unrestricted property use. The two samples are designated as S-17 and S-22. The concentrations of PCBs in those samples were 12.8 ppm and 10.7 ppm, respectively. Both of these samples were collected from outside the north fence on the bank of Beaverdam Creek. Copies of the laboratory analyses results are attached.

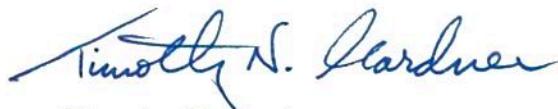
Based on the site-specific conditions at Roger's Electric, REWEI recommends no additional excavation and removal activities outside the north fence of the site. That recommendation is based on the following:

- The two samples with PCB concentrations above 10 ppm had samples with PCB concentrations below 10 ppm on both sides of them. This indicates that the residual contamination exists in areas that are small and isolated.
- Potential human exposure due to trespass in the area is minimized due to the chain link fence immediately south of the contaminated areas, and Beaverdam Creek and a railroad track to the north. Because the railroad track is a high speed commuter line as well as a freight line, the track area is fenced and secured by the railroad. Additionally, the area where the samples were collected consists of a steep creek bank that is covered by heavy vegetation and large rip-rap.
- A commonly accepted cleanup level for PCBs at an industrial site such as the Roger's Electric site is 25 ppm. The highest concentration remaining outside the fenced area is less than 3 ppm over the action level for unrestricted use, and is half the action level approved at many industrially restricted areas.
- Past sampling and analyses of stream bed sediments, performed by both EPA and REWEI indicates that PCB concentrations in Beaverdam Creek sediments are de minimis. This indicates that off-site migration of PCBs from the Roger's Electric site is not occurring.

Based on the above, REWEI requests on Blake Construction Co., Inc.'s behalf, that the EPA accept our recommendation that no further excavation and removal outside the Roger's Electric north fence be performed. Upon your concurrence, we will return to the site to complete the PCB removal from the previously excavated area in the northwest corner of the site. Please advise on this matter at your earliest convenience so that the Roger's Electric PCB cleanup may be formally concluded as soon as possible.

Sincerely,

R. E. WRIGHT ENVIRONMENTAL, INC.



Timothy N. Gardner  
Project Manager

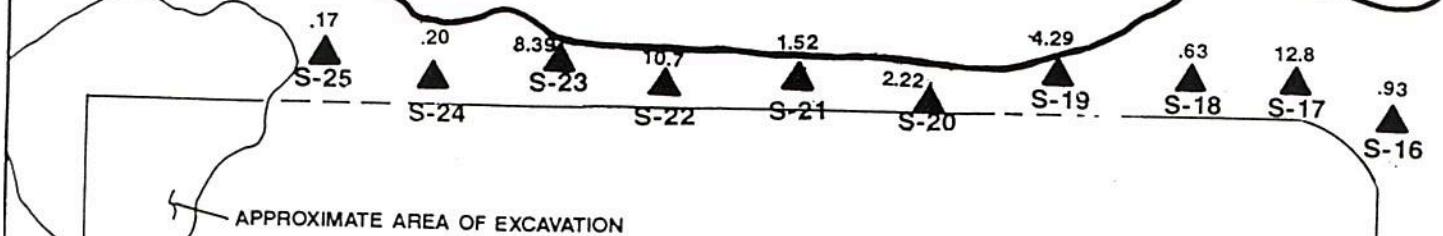
TNG:aea

cc: Chester White  
John Seymour

M1995\5239L4

r.e. wright environmental, inc.

### BEAVERDAM CREEK



APPROXIMATE AREA OF EXCAVATION

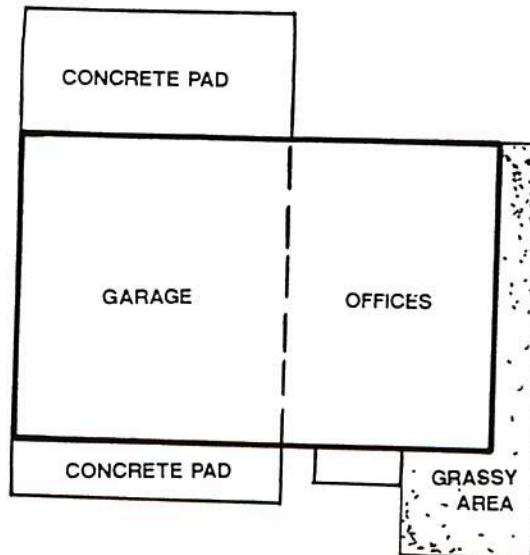
S-26  
.13

S-27  
.1

S-28  
.20

S-29  
.10

S-30  
.11



GRASSY AREA

#### LEGEND

- ▲ SAMPLE LOCATIONS
- 10.7 CONCENTRATIONS OF PCB'S  
(EXPRESSED IN PARTS PER MILLION)

FIGURE 1

BLAKE CONSTRUCTION  
CHEVERLY, MD.

ROGERS ELECTRIC  
SAMPLING PLAN



drawn  
checked

REB

7/1/94

date

approved

7/1/94

date

drawing no.  
95239-001-AA

r.e. wright environmental, inc.  
total environmental solutions  
middletown, pa      royal, pa      hagerstown, md      herndon, va

# **MARYLAND SPECTRAL SERVICES, INC.**

1500 CATON CENTER DRIVE, BALTIMORE, MD 21227

(410) 247-7600

## **LABORATORY RESULTS**

**RESULTS OF ANALYSIS OF THE  
BLAKE CONSTRUCTION SOIL SAMPLES  
COLLECTED 13 JULY 1995**

Prepared For  
R. E. WRIGHT ENVIRONMENTAL, INC.  
WESTMINSTER, MD

21 July 1995

SAMPLE DATA SUMMARY PACKAGE

Table of Contents

1. Narrative
2. Chain-of-Custody Forms
3. Results of Analysis of Samples
4. Results for Laboratory Fortified Blanks
5. Chromatograms of Samples and Method Blanks

1. Narrative

**NARRATIVE**

Laboratory Name: Maryland Spectral Services, Inc. (MSS)

Date Samples Delivered to MSS Laboratory: 13 July 1995

Project: Blake Construction; #95239

Project Manager: Mr. Tim Gardner

Results for the following samples are included in this data package:

Client ID	MSS ID	Matrix	Analysis
S-16	950713-07	Soil	PCBs (8080)
S-17	950713-08	Soil	PCBs (8080)
S-18	950713-09	Soil	PCBs (8080)
S-19	950713-10	Soil	PCBs (8080)
S-20	950713-11	Soil	PCBs (8080)
S-21	950713-12	Soil	PCBs (8080)
S-22	950713-13	Soil	PCBs (8080)
S-23	950713-14	Soil	PCBs (8080)
S-24	950713-15	Soil	PCBs (8080)
S-25	950713-16	Soil	PCBs (8080)
S-26	950713-17	Soil	PCBs (8080)
S-27	950713-18	Soil	PCBs (8080)
S-28	950713-19	Soil	PCBs (8080)
S-29	950713-20	Soil	PCBs (8080)
S-30	950713-21	Soil	PCBs (8080)

The Polychlorinated Biphenyls (PCBs) analyses were performed by U.S. EPA Methods 3540/8080 (Soxhlet/GC/ECD). Fifteen grams of each sample was extracted in a Soxhlet apparatus. The extracts were taken to a final volume of 10 mL and analyzed by GC/ECD using capillary chromatography.

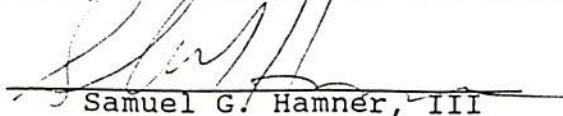
Results of analysis are presented in Section 3 and are reported as milligrams per kilogram (parts per million) on a dry-weight basis.

All sample preparations and analyses were completed within the required holding time limitations.

Each sample, standard, and blank was spiked with the surrogate compound dibutyl chlorendate (DBC) to monitor method performance. Results of surrogate recoveries are presented in Section 3.

Chromatograms of samples and method blank analyses are provided in Section 4.

RELEASE OF THE DATA CONTAINED IN THIS HARDCOPY DATA PACKAGE HAS BEEN AUTHORIZED BY THE LABORATORY MANAGER OR HIS DESIGNEE, AS VERIFIED BY THE FOLLOWING SIGNATURE:

 DATE: 21 July 95  
Samuel G. Hamner, III 21 July 1995

2. Chain-of-Custody Forms

PHONE ORDER TAKEN BY: \_\_\_\_\_  
 DATE ORDERED: 7/13/95

M S S I  
Wright Lab Services, Inc.  
 CHAIN OF CUSTODY RECORD

DATE REQUESTED: / /

REPORT TO:		CONTACT	PHONE NO.		SALESMAN		
<u>TIM GARDNER</u> <u>R.E.W.E.I.</u>		<u>Tim GARDNER</u> <u>BLAKE</u>	<u>(410) 876 0280</u>				
BILL TO:		PROJECT NAME	PROJECT NO.		P.O. NO.		
<u>Tim GARDNER</u> <u>REWEI</u>		<u>PCBS</u>	<u>95239</u>				
SAMPLE DESCRIPTION/LOCATION		ANALYSES TO BE PERFORMED					
1	S-16	AM	1	✓			REMARKS
2	S-17	AM	1	✓			<u>950713-07</u>
3	S-18	AM	1	✓			08
4	S-19	AM	1	✓			09
5	S-20	AM	1	✓			10
6	S-21	AM	1	✓			11
7	S-22	AM	1	✓			12
8	S-23	AM	1	✓			13
9	S-24	AM	1	✓			14
10	S-25	AM	1	✓			15
REMARKS: <u>MSST</u>							
SHIPPING CARRIER:							
SHIPPING TICKET NUMBER:							
CHAIN-OF-CUSTODY SEAL: INTACT      BROKEN      ABSENT							
RELINQUISHED BY: <u>Tim Gardner</u>		DATE <u>7/13</u>	TIME <u>1:30</u>	RECEIVED BY: <u>Karen Warner</u>	DATE <u>7/13/95</u>	TIME <u>1:30PM</u>	RELINQUISHED BY: DATE      TIME
RECEIVED BY:		DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY: DATE      TIME
RELINQUISHED BY:		DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY: DATE      TIME

PHONE ORDER TAKEN BY: \_\_\_\_\_  
DATE ORDERED: 7/13/95

MSS I  
~~Wright Lab Services, Inc.~~  
CHAIN OF CUSTODY RECORD

REPORT TO: <u>T.M GARDNER</u> <u>REWEI</u>		CONTACT →	DATE REQUESTED: <u>(410) 876 0280</u>					
		PROJECT NAME <u>BLAKE</u>	PHONE NO. <u>95239</u>					
		DATE SAMPLED <u>7/13/95</u>	PROJECT NO. <u>95239</u>					
BILL TO: <u>V</u>		SAMPLER(S) <u>DCD</u>	P.O. NO.					
ANALYSES TO BE PERFORMED								
TIME OF SAMPLING TOTAL NO. OF CONTAINERS <u>PCBS</u> <u>BOB</u>								
SAMPLE DESCRIPTION/LOCATION		MSS # REMARKS						
1	S-26	AM	✓	95-0713-17				
2	S-27	AM	✓	18				
3	S-28	AM	✓	19				
4	S-29	AM	✓	20				
5	S-30	AM	✓	21				
6	S-31	AM	✓	22				
7								
8								
9								
10								
REMARKS: <u>10 - Engle, Bottled with</u>				SHIPPING CARRIER:				
				SHIPPING TICKET NUMBER:				
				CHAIN-OF-CUSTODY SEAL: INTACT      BROKEN      ABSENT				
RELINQUISHED BY: <u>T.M Gardner</u>	DATE <u>7/13</u>	TIME <u>1:30</u>	RECEIVED BY: <u>Threen Hammar</u>	RELINQUISHED BY: <u>7/13/95</u>	DATE <u>1:30 PM</u>	TIME		
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
RELINQUISHED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME

### **3. Results of Analysis of Samples**

**MARYLAND SPECTRAL SERVICES, INC.**  
 1500 Caton Center Drive Baltimore, MD 21227

PCBs BY EPA METHODS 3540/8080 (MODIFIED)

CLIENT SAMPLE ID:	S-16	S-17	S-18	S-19	S-20	S-21
LAB SAMPLE ID:	BLAKE	BLAKE	BLAKE	BLAKE	BLAKE	BLAKE
SAMPLE DATE:	95071307	95071308	95071309	95071310	95071311	95071312
RECEIVED DATE:	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95
EXTRACTION DATE:	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95
ANALYSIS DATE:	07/14/95	07/14/95	07/14/95	07/14/95	07/14/95	07/14/95
MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PERCENT MOISTURE:	7 %	19 %	7 %	14 %	7 %	10 %
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
DILUTION FACTOR:	1	10	1	5	1	1
COMPOUND	(Results are reported on a dry-weight basis.)					
Aroclor-1016	0.11 U	1.23 U	0.11 U	0.58 U	0.11 U	0.11 U
Aroclor-1221	0.11 U	1.23 U	0.11 U	0.58 U	0.11 U	0.11 U
Aroclor-1232	0.11 U	1.23 U	0.11 U	0.58 U	0.11 U	0.11 U
Aroclor-1242	0.11 U	1.23 U	0.11 U	0.58 U	0.11 U	0.11 U
Aroclor-1248	0.11 U	1.23 U	0.11 U	0.58 U	0.11 U	0.11 U
Aroclor-1254	0.11 U	1.23 U	0.11 U	0.58 U	0.11 U	0.11 U
Aroclor-1260	<u>0.93</u>	<u>12.8</u>	<u>0.63</u>	<u>4.29</u>	<u>2.22</u>	<u>1.52</u>
Surrogate Recovery (DBC)	94 %	DL	107 %	DL	119 %	107 %

U - Below Reported Quantitation Level

MG/KG - Milligram per Kilogram

DL - Surrogate Diluted Out

**MARYLAND SPECTRAL SERVICES, INC.**  
 1500 Caton Center Drive Baltimore, MD 21227

PCBs BY EPA METHODS 3540/8080 (MODIFIED)

CLIENT SAMPLE ID:	S-22	S-23	S-24	S-25	S-26	S-27
LAB SAMPLE ID:	BLAKE	BLAKE	BLAKE	BLAKE	BLAKE	BLAKE
SAMPLE DATE:	95071313	95071314	95071315	95071316	95071317	95071318
RECEIVED DATE:	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95
EXTRACTION DATE:	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95	07/13/95
ANALYSIS DATE:	07/14/95	07/14/95	07/14/95	07/14/95	07/14/95	07/14/95
MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PERCENT MOISTURE:	13 %	11 %	4 %	21 %	0 %	2 %
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
DILUTION FACTOR:	5	5	1	1	1	1
COMPOUND	(Results are reported on a dry-weight basis.)					
Aroclor-1016	0.57 U	0.56 U	0.10 U	0.13 U	0.10 U	0.10 U
Aroclor-1221	0.57 U	0.56 U	0.10 U	0.13 U	0.10 U	0.10 U
Aroclor-1232	0.57 U	0.56 U	0.10 U	0.13 U	0.10 U	0.10 U
Aroclor-1242	0.57 U	0.56 U	0.10 U	0.13 U	0.10 U	0.10 U
Aroclor-1248	0.57 U	0.56 U	0.10 U	0.13 U	0.10 U	0.10 U
Aroclor-1254	0.57 U	0.56 U	0.10 U	0.13 U	0.10 U	0.10 U
Aroclor-1260	<u>10.7</u>	<u>8.39</u>	<u>0.20</u>	<u>0.17</u>	<u>0.13</u>	0.10 U
Surrogate Recovery (DBC)	DL	DL	108 %	102 %	93 %	31 %

U - Below Reported Quantitation Level

MG/KG - Milligram per Kilogram

DL - Surrogate Diluted Out

**MARYLAND SPECTRAL SERVICES, INC.**  
 1500 Caton Center Drive Baltimore, MD 21227

PCBs BY EPA METHODS 3540/8080 (MODIFIED)

CLIENT SAMPLE ID:	S-28 BLAKE	S-29 BLAKE	S-30 BLAKE	METHOD BLANK	METHOD BLANK
LAB SAMPLE ID:	95071319	95071320	95071321	PS-BLK13	PS-BLK14
SAMPLE DATE:	07/13/95	07/13/95	07/13/95		
RECEIVED DATE:	07/13/95	07/13/95	07/13/95		
EXTRACTION DATE:	07/14/95	07/14/95	07/14/95	07/13/95	07/14/95
ANALYSIS DATE:	07/17/95	07/17/95	07/17/95	07/14/95	07/17/95
MATRIX:	SOIL	SOIL	SOIL	SOIL	SOIL
PERCENT MOISTURE:	6 %	1 %	6 %		
UNITS:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
DILUTION FACTOR:	1	1	1	1	1
COMPOUND	(Results are reported on a dry-weight basis.)				
Aroclor-1016	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U
Aroclor-1221	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U
Aroclor-1232	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U
Aroclor-1242	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U
Aroclor-1248	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U
Aroclor-1254	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U
Aroclor-1260	<u>0.20</u>	0.10 U	0.11 U	0.10 U	0.10 U
Surrogate Recovery (DBC)	36 %	26 %	18 %	91 %	115 %

U - Below Reported Quantitation Level

MG/KG - Milligram per Kilogram

DL - Surrogate Diluted Out

4. Results for Laboratory Fortified Blanks

MARYLAND SPECTRAL SERVICES, INC.  
1500 Caton Center Drive Baltimore, MD 21227

PCBs BY EPA METHODS 3540/8080 (MODIFIED)

CLIENT SAMPLE ID: LABORATORY FORTIFIED BLANK  
LAB SAMPLE ID: LFB13  
EXTRACTION DATE: 07/13/95  
ANALYSIS DATE: 07/14/95  
MATRIX: SOIL  
UNITS: MG/KG  
DILUTION FACTOR: 1

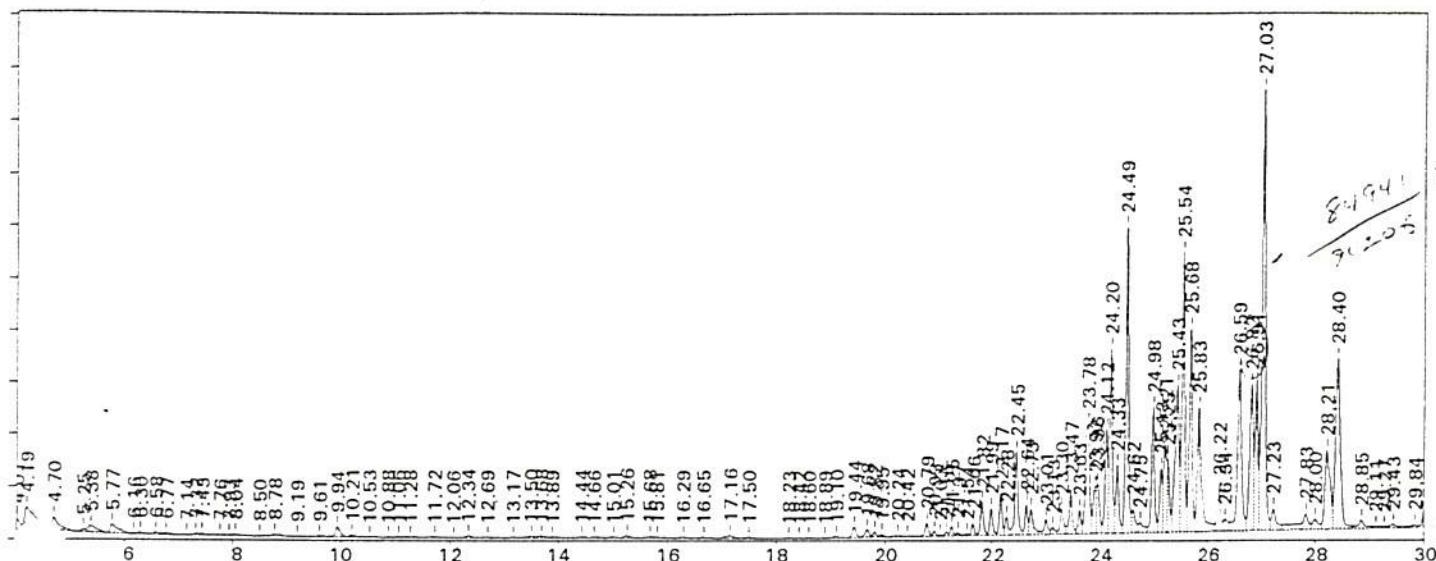
COMPOUND	AMOUNT SPIKED	AMOUNT RECOVERED	PERCENT RECOVERY
-----			
Aroclor-1242	0.333	0.446	134 %

MG/KG - Milligram per Kilogram

5. Chromatograms of Samples and Method Blanks

Sample Name=950713-07

4.0 to 30.0 min. Low Y=133.589 High Y=432.322 mv Span=298.733



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-07  
 \* ANALYSIS DATE: Jul 14, 1995 19:31:30  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.11R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

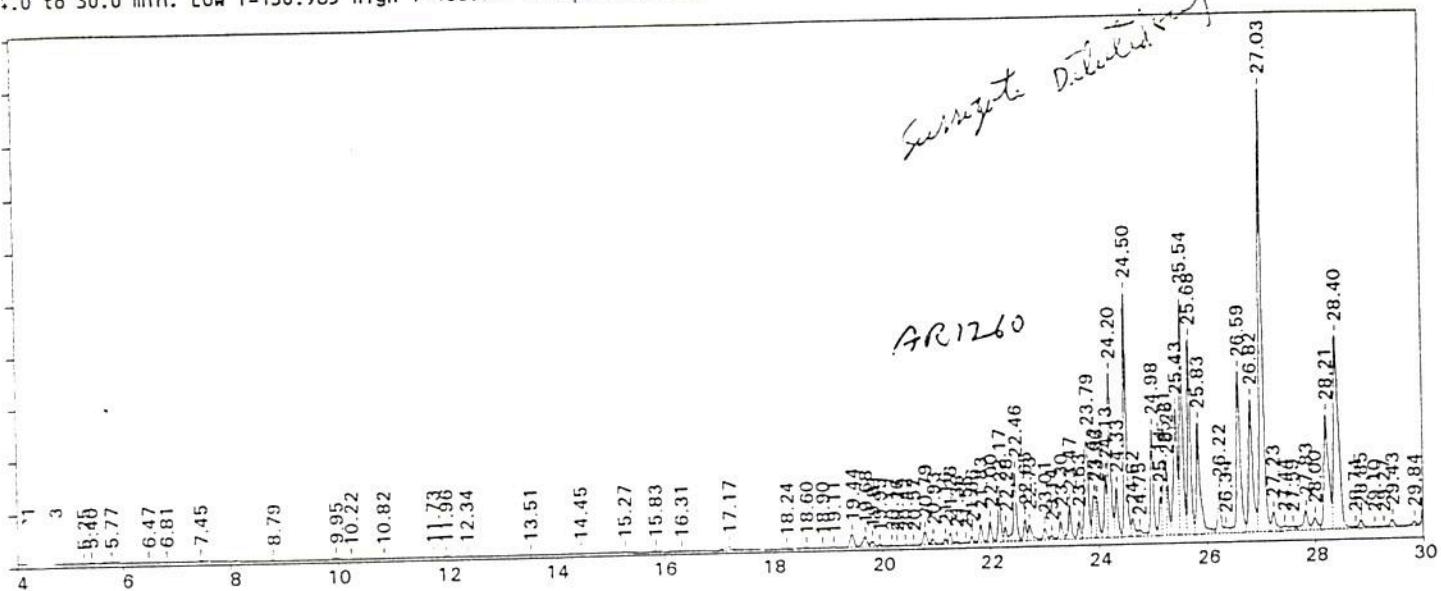
Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.012		BB	2795	1308
2	4.193		BB	147068	10884
3	4.701		BB	64155	7230
4	5.245		BV	7445	1590
5	5.383		VB	42813	3741
6	5.775		BV	48941	4919
7	6.164		VV	2259	439
8	6.296		VV	5675	622
9	6.577		VV	9037	1002
10	6.774		VB	6421	835
11	7.144		BV	1411	304
12	7.315		VV	5763	848
13	7.429		VV	5572	889
14	7.765		VV	3851	487
15	7.927		VV	2404	457
16	8.040		VB	5772	686
17	8.499		BB	1229	188
18	8.777		BB	2647	622
19	9.194		BV	634	80
20	9.609		VV	3097	259
21	9.943		VV	33416	5535
22	10.210		VB	6498	1041
23	10.534		BB	344	91
24	10.876		BV	960	174
25	11.064		VV	2743	309
26	11.280		VV	3176	310

Can't find or read that file

file=C:\DIRECT\DATABASE\0714B.23R Date printed=07-17-1995 Time= 14:50:21

Sample Name=950713-08 1/10 DILN

4.0 to 30.0 min. Low Y=130.985 High Y=488.953 mv Span=357.968



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-08 1/10 DILN  
\* ANALYSIS DATE: Jul 17, 1995 14:48:59  
\* OPERATOR: KD  
\* INSTRUMENT ID: GC-B--ECD  
\* METHOD FILE: C:\DIRECT\DATABASE\RUN.MET  
\* RAW DATA FILE NAME: C:\DIRECT\DATABASE\0714B.23R  
\* RUN TIME: 30  
\*  
\* DILUTION FACTOR: 1  
\* AMOUNT INJECTED: 1

23212560  
1815935 1.5536  
15(21) = 4.0420 (10)(10)  
12.5 = 5.58 mg/g

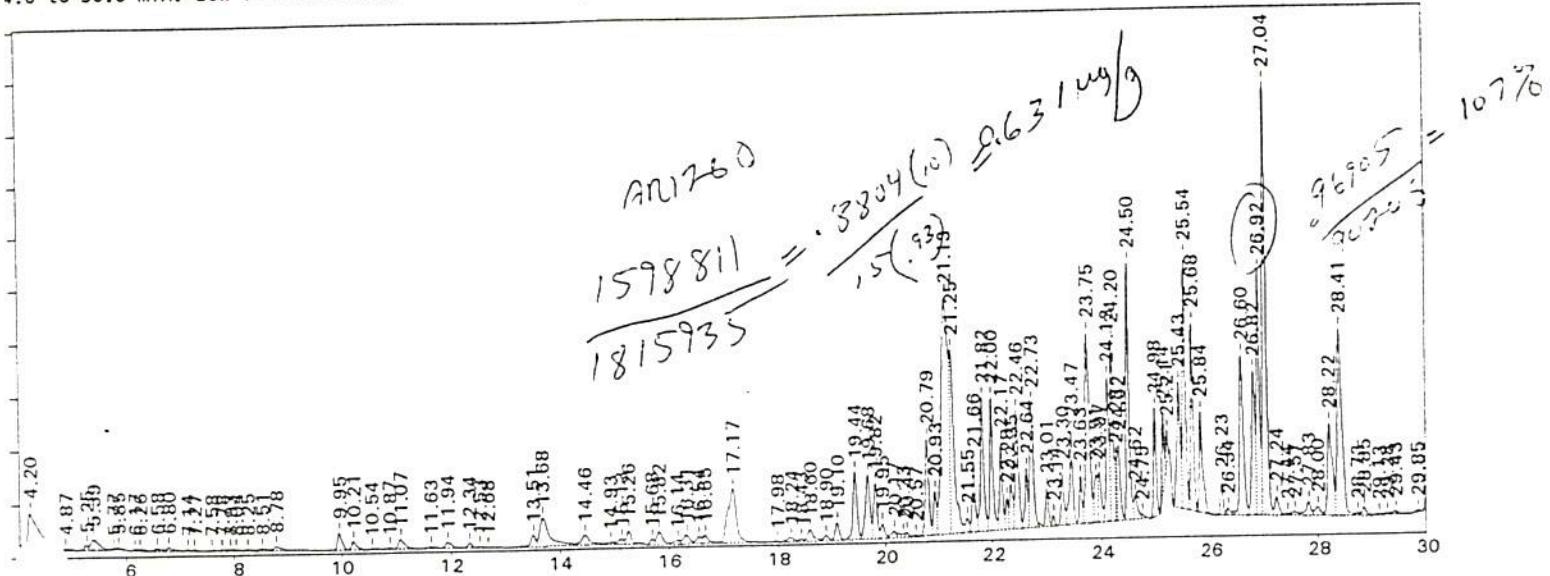
RTX-35 30 X 0.25mm 2uL INJ  
PCBs BY 8080 MODIFIED

\*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.205	BB	3286	662
2	4.727	BB	700	113
3	5.254	BV	639	126
4	5.399	VB	2056	223
5	5.772	BB	1710	178
6	6.472	BB	298	73
7	6.805	BB	1047	169
8	7.445	BB	3083	730
9	8.790	BB	643	105
10	9.948	BB	6943	1054
11	10.217	BB	777	109
12	10.818	BB	699	99
13	11.726	BV	2510	229
14	11.964	VB	3614	478
15	12.341	BB	1335	232
16	13.510	BB	1098	210
17	14.451	BB	2943	352
18	15.267	BB	7509	698
19	15.826	BV	6723	637
20	16.308	VB	3403	224
21	17.173	BB	23811	2334
22	18.239	BB	1275	187
23	18.603	BB	5153	815
24	18.903	BB	1669	313
25	19.106	BB	3298	604

Sample Name=950713-09

4.0 to 30.0 min. Low Y=134.632 High Y=345.385 mv Span=210.753



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

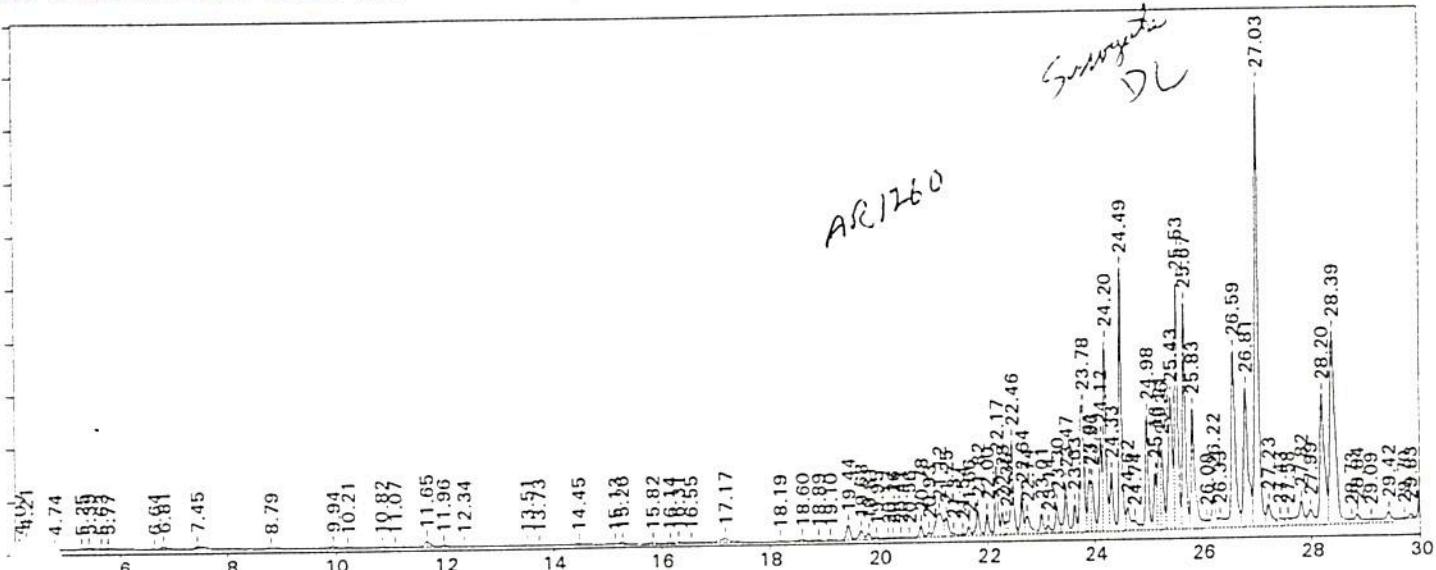
\* SAMPLE NAME: 950713-09  
 \* ANALYSIS DATE: Jul 14, 1995 20:37:56  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.13R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.196		BB	194904	14022
2	4.868		BB	7928	515
3	5.249		BV	9435	1968
4	5.388		VB	46005	4213
5	5.765		BV	1322	361
6	5.854		VB	1560	441
7	6.167		BV	2390	520
8	6.261		VB	4891	614
9	6.576		BV	7411	849
10	6.797		VV	11290	1341
11	7.143		VV	2501	384
12	7.272		VB	3728	438
13	7.584		BV	4014	458
14	7.776		VV	3081	422
15	7.929		VV	2773	475
16	8.038		VV	2566	469
17	8.248		VV	3735	531
18	8.514		VV	7443	771
19	8.781		VB	14296	1558
20	9.948		BV	41094	6855
21	10.213		VV	22646	3261
22	10.543		VV	2936	372
23	10.873		VV	4374	509
24	11.070		VV	32841	3844
25	11.629		VV	7959	647
26	11.937		VV	19822	2289

Sample Name=950713-10 1/5 DILN

4.0 to 30.0 min. Low Y=131.559 High Y=370.304 mv Span=238.745



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-10 1/5 DILN  
 \* ANALYSIS DATE: Jul 17, 1995 15:22:15  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.24R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1  
 \* AMOUNT INJECTED: 1

2008050 = 11058(10)(5)  
1815935 15(86)

= 4.29 ms

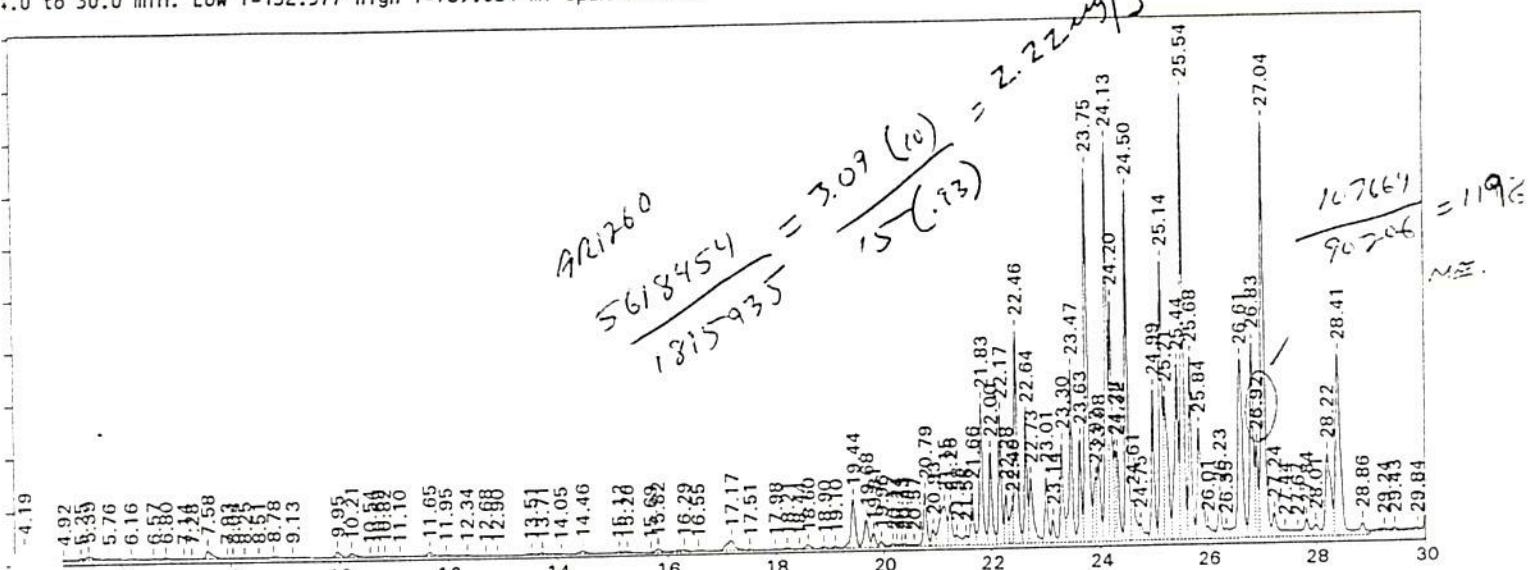
RTX-35 30 X 0.25mm 2uL INJ  
 PCBs BY 8080 MODIFIED

\*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Type	Peak Area	Peak Height
1	4.071		BV	718	162
2	4.207		VB	41035	2675
3	4.742		BB	321	67
4	5.252		BV	1717	337
5	5.394		VV	7239	670
6	5.628		VV	1823	317
7	5.767		VB	5067	396
8	6.640		BB	658	100
9	6.809		BB	9312	1156
10	7.448		BB	3748	821
11	8.786		BB	2156	213
12	9.944		BB	6152	920
13	10.211		BV	2801	410
14	10.823		VV	2704	347
15	11.075		VB	1356	135
16	11.649		BV	19622	2514
17	11.963		VV	5726	724
18	12.340		VB	1351	221
19	13.506		BV	2010	362
20	13.727		VB	1013	156
21	14.454		BB	3512	439
22	15.129		BV	1225	202
23	15.261		VB	4337	752
24	15.822		BV	10658	911
25	16.144		VV	4521	499
26	16.307		VV	6871	720

Sample Name=950713-11

4.0 to 30.0 min. Low Y=132.577 High Y=769.084 mv Span=636.508



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

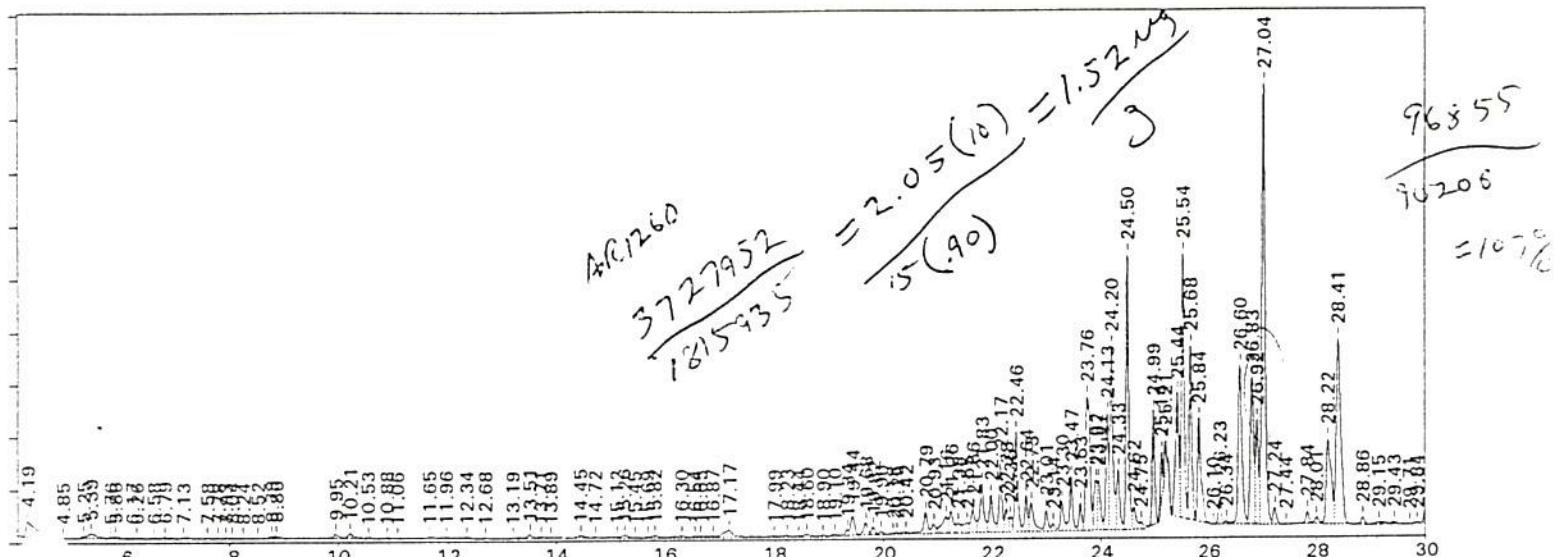
\* SAMPLE NAME: 950713-11  
 \* ANALYSIS DATE: Jul 14, 1995 21:44:25  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.15R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.195		BB	206673	15028
2	4.922		BV	7793	715
3	5.246		VV	11540	2274
4	5.387		VB	51028	4532
5	5.761		BB	4926	818
6	6.163		BB	1669	485
7	6.575		BV	9163	1012
8	6.799		VV	14616	1686
9	7.141		VV	2455	393
10	7.277		VB	4039	523
11	7.577		BV	83602	10021
12	7.927		VV	2343	415
13	8.038		VB	2075	489
14	8.248		BV	2569	441
15	8.507		VB	1223	203
16	8.781		BB	3088	806
17	9.127		BB	554	109
18	9.948		BV	44212	7075
19	10.213		VV	35413	4901
20	10.537		VV	1632	283
21	10.692		VV	4463	699
22	10.816		VB	6585	770
23	11.099		BB	2527	375
24	11.649		BV	40150	5212
25	11.955		VV	13756	1484
26	12.341		VB	8181	1186

Sample Name=950713-12

4.0 to 30.0 min. Low Y=133.551 High Y=618.491 mv Span=484.939



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

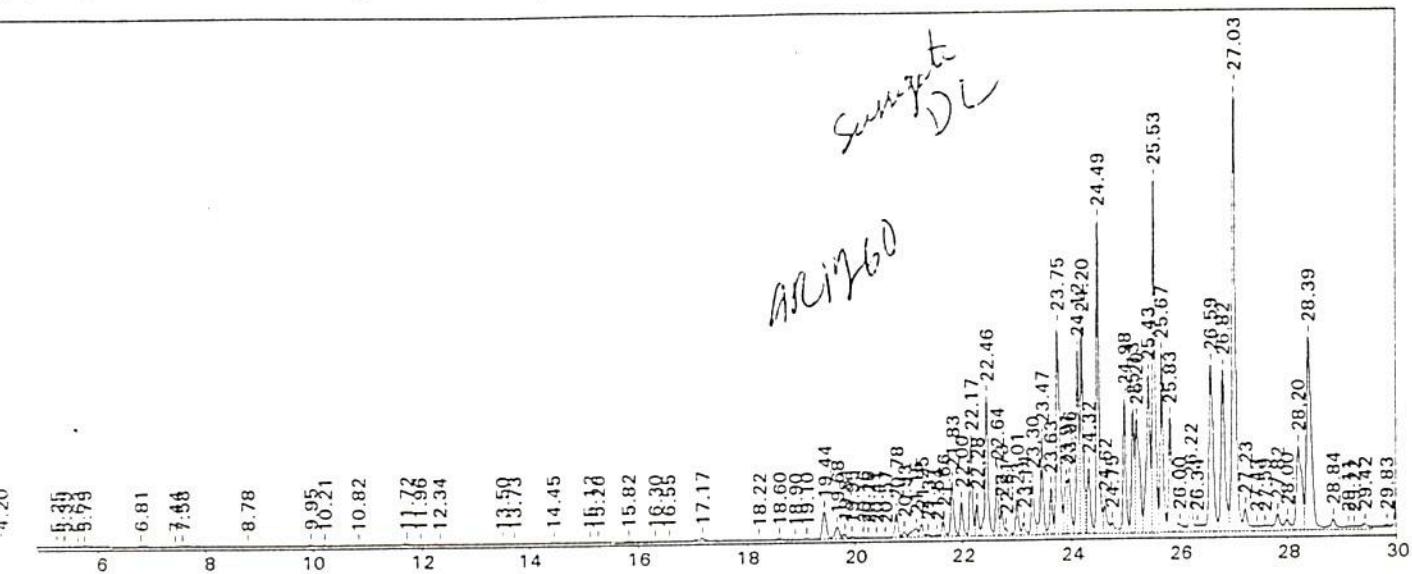
\* SAMPLE NAME: 950713-12  
 \* ANALYSIS DATE: Jul 14, 1995 22:17:40  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.16R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.195		BB	199684	14746
2	4.846		BB	691	184
3	5.247		BV	10107	2124
4	5.386		VV	52518	4507
5	5.764		VV	2994	699
6	5.856		VV	12117	1575
7	6.174		VV	1460	363
8	6.262		VB	5328	610
9	6.577		BV	5813	651
10	6.790		VB	6536	861
11	7.135		BB	978	214
12	7.580		BV	4512	522
13	7.783		VV	3033	426
14	7.930		VV	2508	471
15	8.040		VV	3677	634
16	8.244		VB	1554	270
17	8.517		BV	906	148
18	8.782		VV	8296	1752
19	8.863		VB	11586	1787
20	9.946		BV	23177	3808
21	10.213		VV	30500	4464
22	10.533		VB	2459	291
23	10.877		BV	2297	401
24	11.057		VB	1134	160
25	11.652		BB	971	229
26	11.957		BB	4526	573

Sample Name=950713-13 1/5 DILN

4.0 to 30.0 min. Low Y=129.677 High Y=744.74 mv Span=615.063



## \*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-13 1/5 DILN  
 \* ANALYSIS DATE: Jul 17, 1995 15:55:31  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.25R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

*5090704* = 2.8034 (10)<sup>(5)</sup>  
*1815935* = 15 (.37)

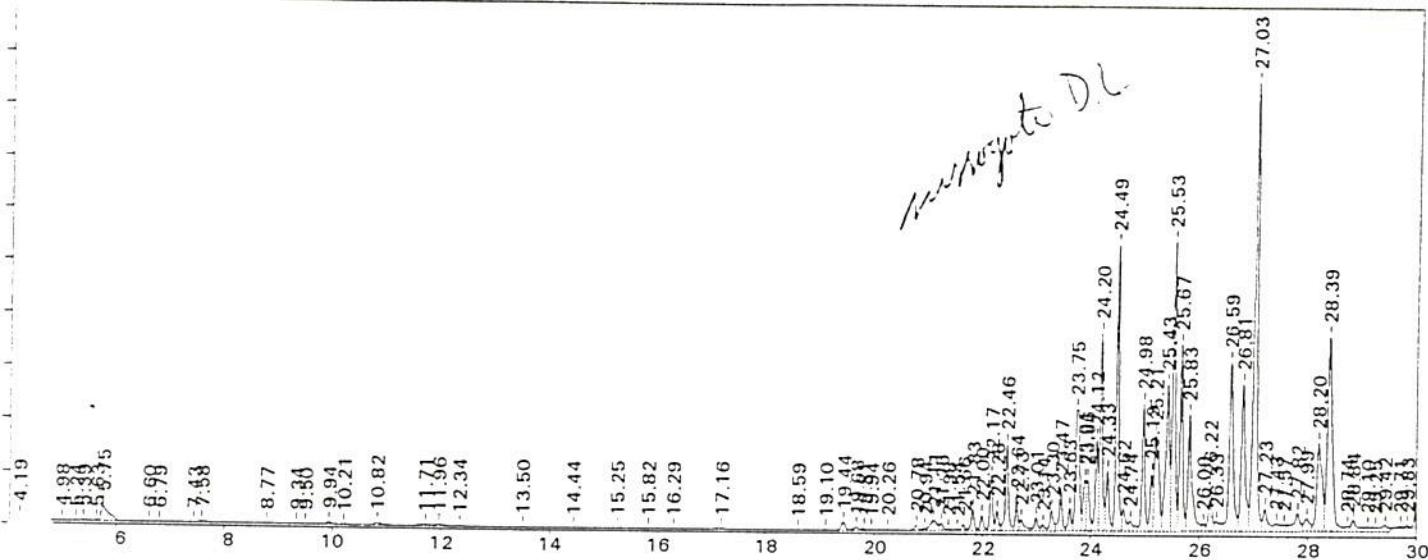
= 10.74 mg/g

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.201		BB	40036	2769
2	5.247		BV	1793	350
3	5.388		VV	6386	628
4	5.633		VV	1810	357
5	5.752		VB	11595	1065
6	6.806		BB	4741	609
7	7.443		BV	463	103
8	7.577		VB	6554	774
9	8.784		BB	2420	258
10	9.946		BB	7892	1221
11	10.210		BB	4392	692
12	10.823		BB	1689	212
13	11.715		BV	9724	897
14	11.961		VB	2750	341
15	12.335		BB	1189	219
16	13.504		BV	2557	438
17	13.726		VB	946	154
18	14.447		BB	6362	689
19	15.121		BV	1372	230
20	15.258		VB	2523	431
21	15.818		BV	12847	1368
22	16.303		VV	7459	459
23	16.547		VB	440	91
24	17.166		BB	35119	3289
25	18.223		BV	2711	331
26	18.595		VB	9651	1498

Sample Name=950713-14 1/5 DILN

4.0 to 30.0 min. Low Y=130.912 High Y=645.019 mv Span=514.107



## \*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-14 1/5 DILN  
 \* ANALYSIS DATE: Jul 17, 1995 16:28:46  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.26R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

$$\begin{array}{c}
 \text{406.81t} \\
 \overline{1315935} = 224.10(5) \\
 \overline{15(6.8)} = 8.39 \mu\text{g}
 \end{array}$$

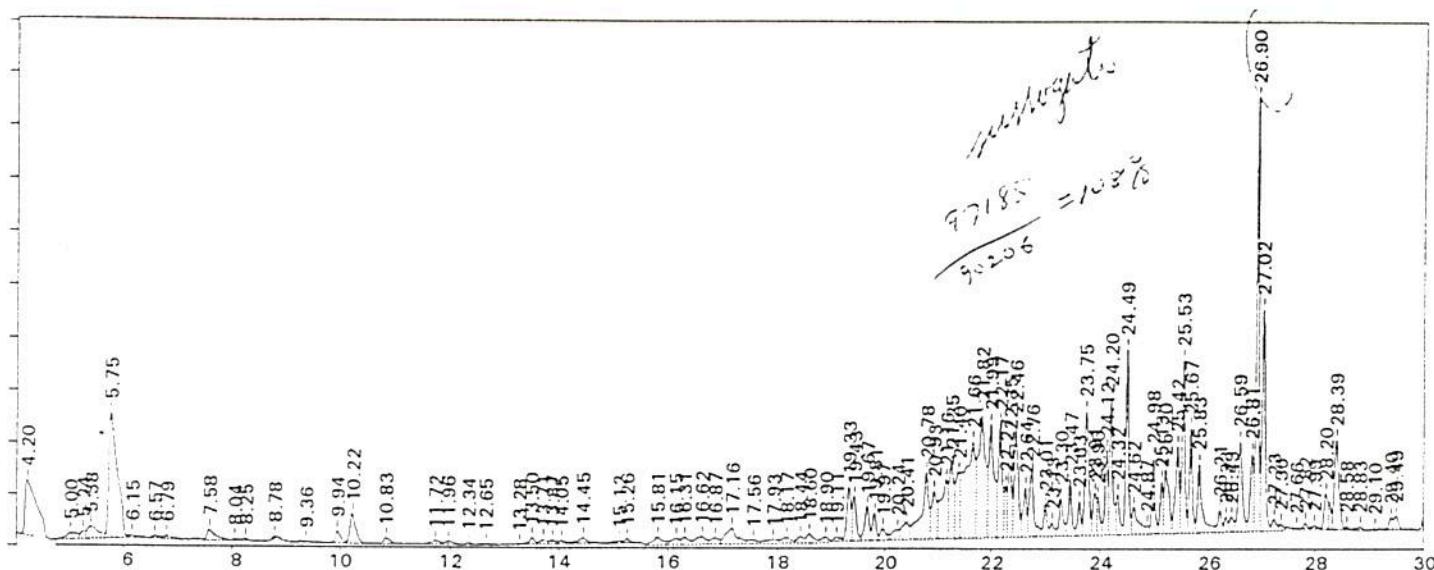
## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.192		BB	48501	3310
2	4.982		BV	2171	264
3	5.241		VV	1379	286
4	5.385		VV	4702	498
5	5.629		VV	1273	305
6	5.748		VB	149985	14866
7	6.602		BV	1437	181
8	6.788		VB	857	145
9	7.434		BV	1451	349
10	7.583		VB	12871	1289
11	8.774		BB	1563	181
12	9.337		BV	388	69
13	9.498		VV	1370	148
14	9.943		VV	12820	1991
15	10.210		VB	1129	160
16	10.820		BV	16401	2345
17	11.712		VV	14139	1236
18	11.960		VB	11128	1480
19	12.337		BB	997	190
20	13.500		BB	859	160
21	14.437		BB	927	120
22	15.249		BB	711	129
23	15.818		BV	2415	171
24	16.285		VB	1028	139
25	17.164		BB	5185	556
26	18.595		BB	1230	195

File=C:\DIRECT\DATA\B1\0714B.28R Date printed=07-17-1995 Time= 17:35:24

Sample Name=950713-15

4.0 to 30.0 min. Low Y=134.368 High Y=253.28 mv Span=118.912



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-15  
\* ANALYSIS DATE: Jul 17, 1995 17:35:22  
\* OPERATOR: KD  
\* INSTRUMENT ID: GC-B--ECD  
\* METHOD FILE: C:\DIRECT\DATA\B1\RUN.MET  
\* RAW DATA FILE NAME: C:\DIRECT\DATA\B1\0714B.28R  
\* RUN TIME: 30  
\*  
\* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
\* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

$$\frac{527754}{1815755} = \frac{2703(10)}{15(-10)} = \text{C. 2000}$$

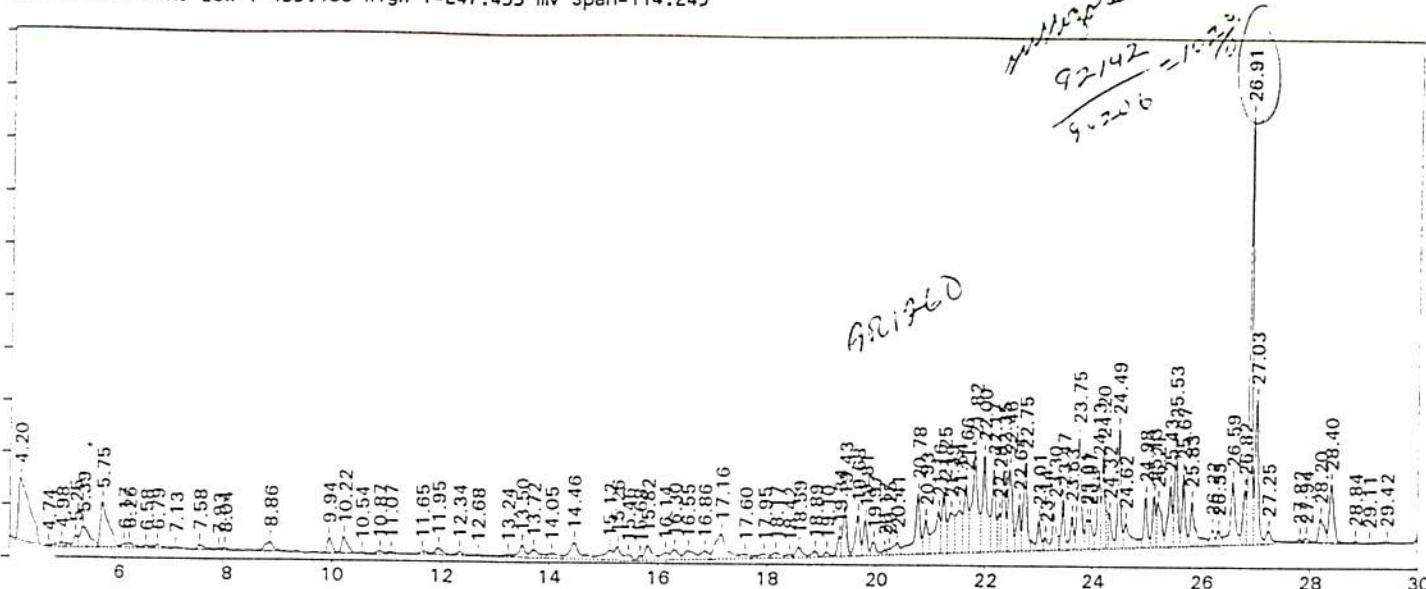
$$D_L = 2.44 \mu\text{g}/\text{mL}$$

\*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.199		BB	193063	12756
2	5.004		BV	13357	1483
3	5.245		VV	10250	1816
4	5.382		VV	36390	2800
5	5.751		VV	312298	28475
6	6.153		VB	2730	467
7	6.571		BV	5311	585
8	6.794		VB	6373	680
9	7.579		BB	26082	2402
10	8.045		BV	2788	350
11	8.246		VB	3302	518
12	8.784		BB	1728	431
13	9.357		BV	3757	282
14	9.945		VV	18035	2776
15	10.216		VB	48641	6723
16	10.825		BB	10444	1348
17	11.721		BV	9193	860
18	11.963		VB	7273	769
19	12.340		BB	2773	494
20	12.654		BB	2850	209
21	13.277		BV	1608	204
22	13.503		VV	10211	1499
23	13.713		VV	7987	956
24	13.872		VV	6483	772
25	14.047		VV	6000	617
26	14.449		VB	11076	1255

Sample Name=950713-16

4.0 to 30.0 min. Low Y=133.188 High Y=247.433 mv Span=114.245



## \*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-16  
 \* ANALYSIS DATE: Jul 17, 1995 18:08:39  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.29R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

$$\frac{367.777}{13.5935} = \frac{2025(10)}{15(87)} = .1703 \text{ (L)}$$

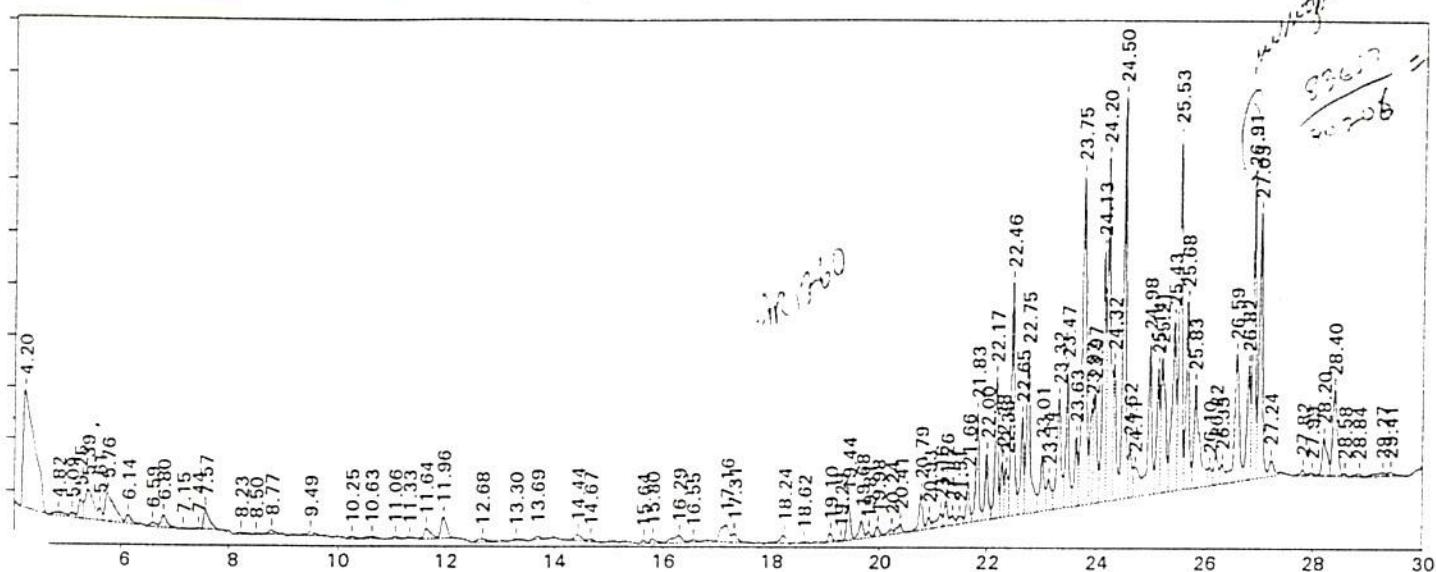
$$DL = \frac{13.59}{3}$$

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.197		BB	196107	13486
2	4.738		BV	1442	290
3	4.983		VV	10489	923
4	5.245		VV	13327	2419
5	5.387		VV	57223	4415
6	5.746		VV	105462	9775
7	6.165		VV	4819	841
8	6.257		VV	10389	1077
9	6.577		VV	5485	633
10	6.791		VB	6791	869
11	7.134		BB	828	154
12	7.576		BV	9195	1089
13	7.927		VV	2510	413
14	8.038		VB	3927	698
15	8.862		BB	21274	2050
16	9.945		BV	20791	3358
17	10.216		VV	26938	3606
18	10.540		VB	2095	244
19	10.874		BV	5150	651
20	11.069		VB	3309	450
21	11.650		BV	5901	547
22	11.946		VV	12906	1436
23	12.338		VV	5605	892
24	12.681		VV	3293	257
25	13.238		VV	5949	482
26	13.503		VV	21842	2733

Sample Name=950713-17

4.0 to 30.0 min. Low Y=132.243 High Y=173.208 mv Span=40.965



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

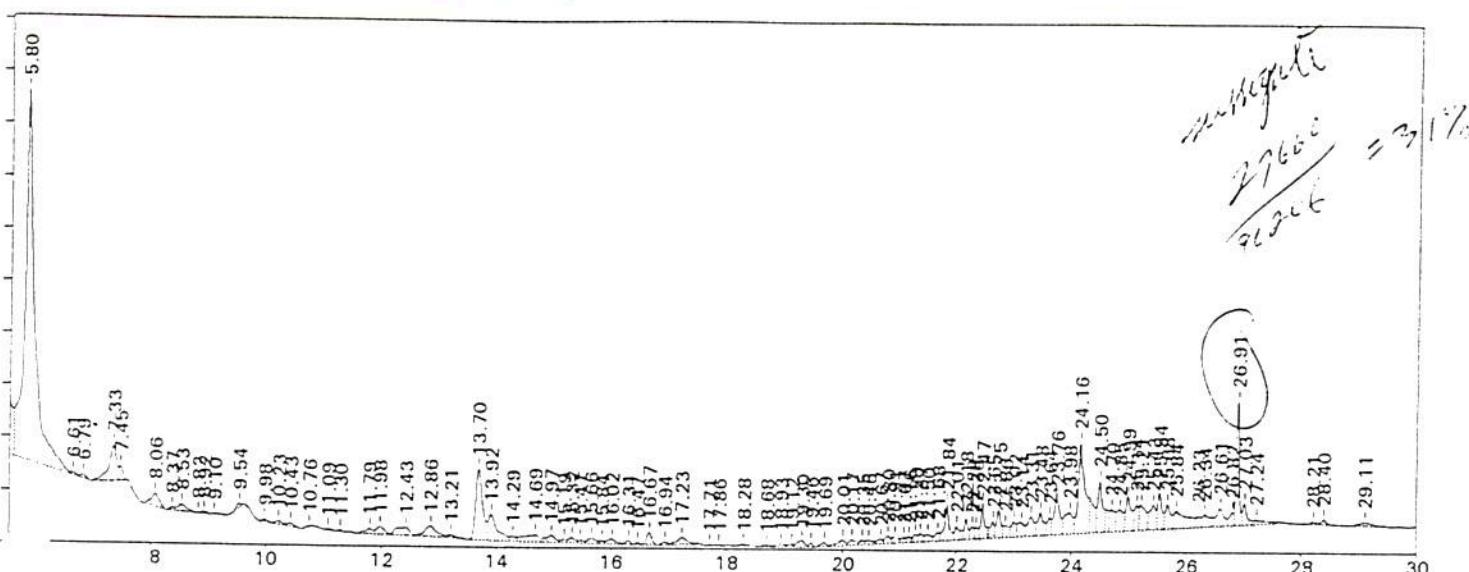
\* SAMPLE NAME: 950713-17  
 \* ANALYSIS DATE: Jul 17, 1995 18:41:51  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.30R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.197		BB	134294	9238
2	4.823		BV	2366	270
3	5.093		VV	2450	391
4	5.246		VV	7371	1408
5	5.386		VV	24535	2272
6	5.611		VV	4987	944
7	5.756		VV	25208	2182
8	6.139		VB	4169	651
9	6.587		BV	2642	312
10	6.796		VB	7686	970
11	7.153		BV	463	83
12	7.442		VV	502	115
13	7.572		VB	11223	1495
14	8.226		BB	1733	166
15	8.500		BV	245	66
16	8.773		VB	2627	328
17	9.486		BB	2693	274
18	10.254		BV	1404	186
19	10.632		BV	1457	168
20	11.062		BB	1194	159
21	11.330		BB	328	53
22	11.644		BV	7104	813
23	11.958		VB	11933	1646
24	12.681		BB	3444	278
25	13.298		BB	538	103
26	13.687		BB	1933	275

Sample Name=950713-18

5.5 to 30.0 min. Low Y=136.36 High Y=256.292 mv Span=119.932



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

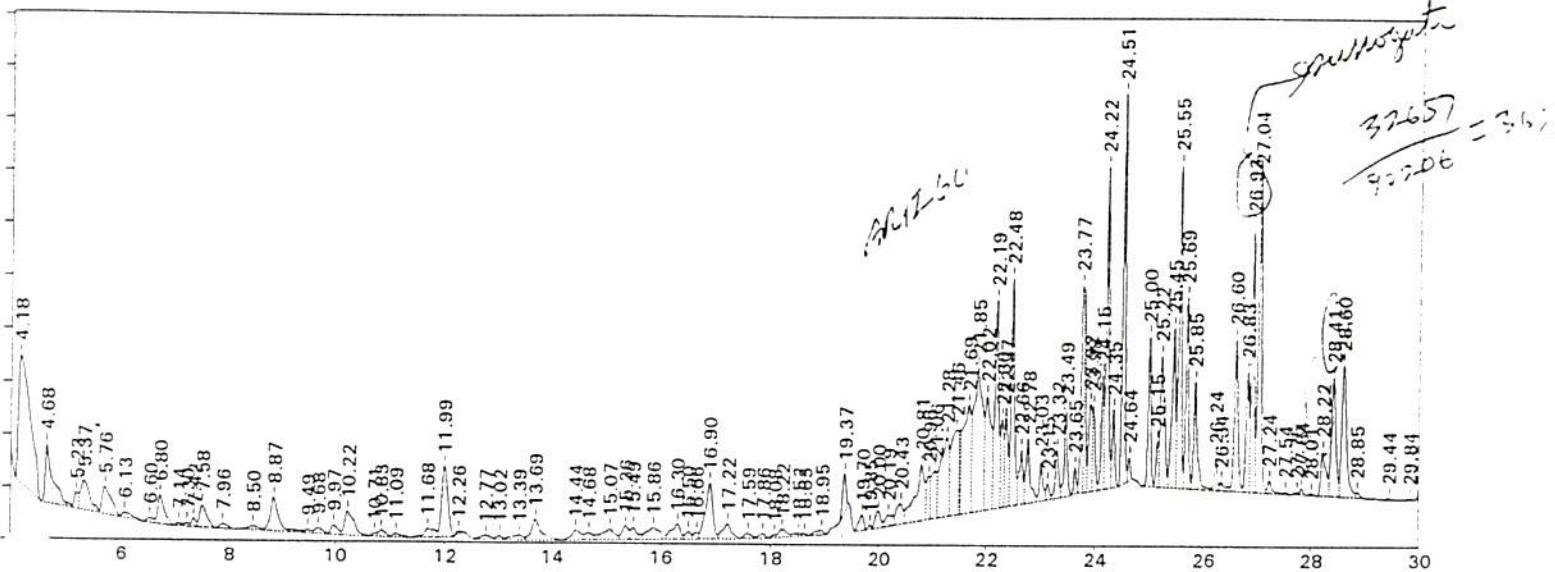
\* SAMPLE NAME: 950713-18  
 \* ANALYSIS DATE: Jul 17, 1995 19:15:08  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.31R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.064		BB	1240664	147481
2	4.730		BV	6425250	819326
3	5.473		VV	99483	12389
4	5.801		VV	1012154	84325
5	6.613		VV	4723	781
6	6.794		VB	5970	931
7	7.328		BV	77209	7909
8	7.452		VB	16394	3325
9	8.063		BB	29016	2912
10	8.369		BV	4035	756
11	8.535		VB	17986	1656
12	8.816		BV	563	166
13	8.923		VB	3015	471
14	9.104		BB	1770	236
15	9.541		BB	4628	743
16	9.979		BV	3566	498
17	10.230		VV	6880	798
18	10.433		VB	6846	824
19	10.758		BB	1211	214
20	11.088		BB	1234	201
21	11.300		BB	1290	297
22	11.795		BV	11330	1176
23	11.980		VV	17360	1759
24	12.433		VV	30482	1804
25	12.857		VV	35890	2444
26	13.211		VB	5624	671

Sample Name=950713-19

4.0 to 30.0 min. Low Y=133.878 High Y=198.823 mv Span=64.945



## \*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

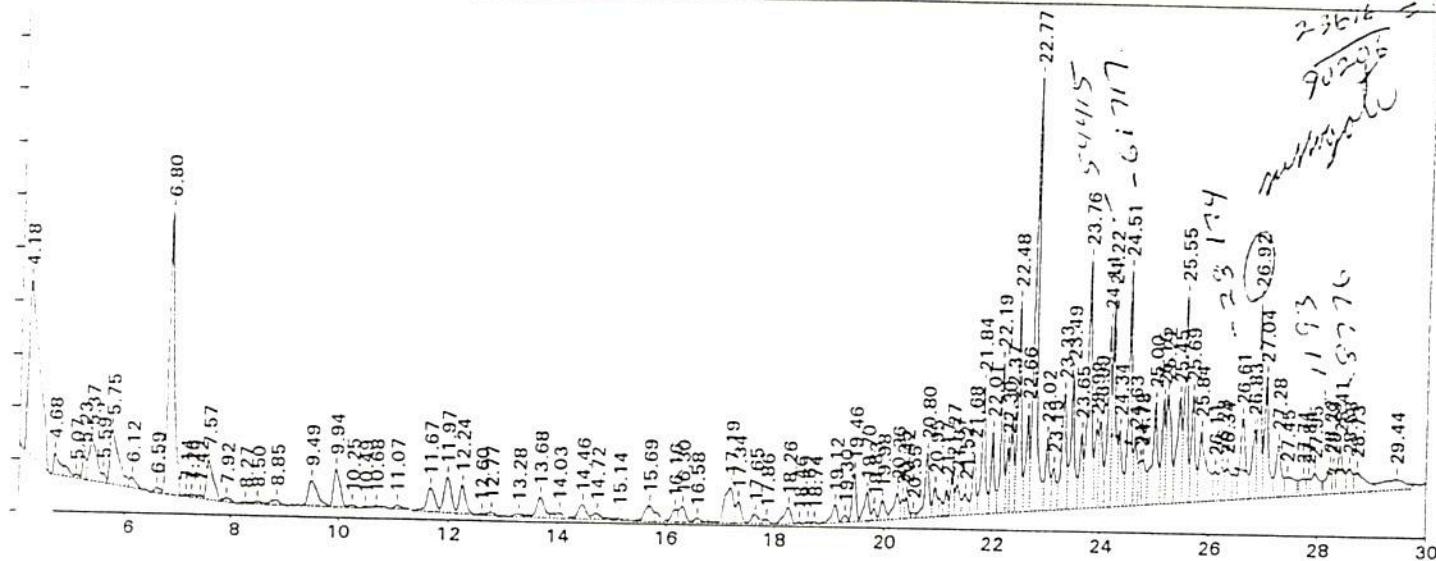
\* SAMPLE NAME: 950713-19  
 \* ANALYSIS DATE: Jul 17, 1995 19:48:22  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.32R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1 RTX-35 30 X 0.25mm 2uL INJ  
 \* AMOUNT INJECTED: 1 PCBs BY 8080 MODIFIED

512290 = .23E(10)  
 1815933 = 15C(74) = .202E-4/3  
 DL = 11ug/j

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.184		BB	236868	15452
2	4.680		BV	68803	7167
3	5.232		VV	10259	1971
4	5.369		VV	40291	3682
5	5.758		VV	40675	3357
6	6.127		VB	9587	674
7	6.599		BV	5090	591
8	6.795		VB	30108	3573
9	7.143		BV	2041	379
10	7.301		VV	2344	440
11	7.424		VV	6069	1080
12	7.577		VB	25375	2737
13	7.958		BB	6207	598
14	8.497		BV	7193	503
15	8.869		VV	41615	4195
16	9.494		VV	3400	438
17	9.684		VV	6862	740
18	9.966		VV	10183	1164
19	10.219		VB	33535	2991
20	10.710		BV	2379	426
21	10.827		VV	7371	798
22	11.093		VB	4392	444
23	11.681		BV	9666	1089
24	11.989		VB	70384	8849
25	12.256		BB	1737	367
26	12.770		BV	5924	449

File=C:\DIRECT\DATAB1\0714B.33R Date printed=07-17-1995 Time= 20:21:41  
 Sample Name=950713-20  
 4.0 to 30.0 min. Low Y=132.993 High Y=197.667 mv Span=64.674



\*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

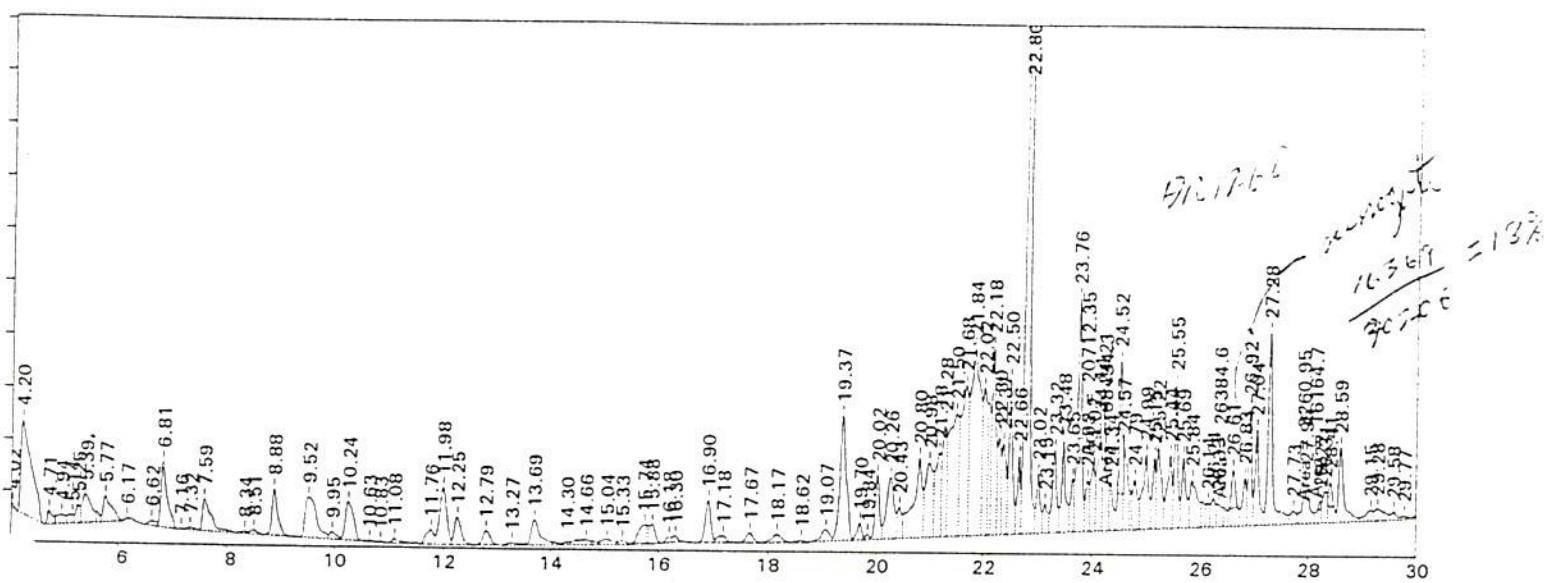
\* SAMPLE NAME: 950713-20  
 \* ANALYSIS DATE: Jul 17, 1995 20:21:39       $\text{AR} = 26.0$        $\frac{154.275}{151.735} = 1.0330 \text{ (10)}$   
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.33R  
 \* RUN TIME: 30       $D_L = .10 \text{ mg}$   
 \*  
 \* DILUTION FACTOR: 1  
 \* AMOUNT INJECTED: 1      RTX-35 30 X 0.25mm 2uL INJ  
 PCBs BY 8080 MODIFIED

\*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.181		BB	301121	21137
2	4.680		BV	20800	2664
3	5.073		VV	3303	508
4	5.231		VV	14377	2792
5	5.370		VV	52971	5066
6	5.589		VV	6215	1309
7	5.746		VV	72863	6828
8	6.123		VB	11154	1380
9	6.595		VB	5470	709
10	6.799		VB	257010	34528
11	7.144		BV	1559	324
12	7.256		VV	3394	388
13	7.422		VV	2430	444
14	7.574		VV	44173	4840
15	7.920		VB	4627	524
16	8.272		BV	2152	205
17	8.501		VV	3388	342
18	8.853		VB	7477	636
19	9.489		BV	37754	3162
20	9.940		VV	39750	4727
21	10.247		VB	3078	378
22	10.488		BV	1295	170
23	10.682		VB	870	198
24	11.068		BB	4008	510
25	11.666		BV	31081	2928
26	11.973		VV	41265	4457

Sample Name=950713-21

4.0 to 30.0 min. Low Y=134.441 High Y=209.441 mv Span=75.0



## \*\*\*\*\* MARYLAND SPECTRAL SERVICES, INC. \*\*\*\*\*

\* SAMPLE NAME: 950713-21  
 \* ANALYSIS DATE: Jul 17, 1995 20:54:54  
 \* OPERATOR: KD  
 \* INSTRUMENT ID: GC-B--ECD  
 \* METHOD FILE: C:\DIRECT\DATAB1\RUN.MET  
 \* RAW DATA FILE NAME: C:\DIRECT\DATAB1\0714B.34R  
 \* RUN TIME: 30  
 \*  
 \* DILUTION FACTOR: 1  
 \* AMOUNT INJECTED: 1 RTX-35 30 X 0.25mm 2uL INJ  
 PCBs BY 8080 MODIFIED

## \*\*\*\*\* PEAKS DETECTED IN THIS CHROMATOGRAM \*\*\*\*\*

Peak #	Ret Time (min)	Compound Name	Peak Type	Peak Area	Peak Height
1	4.020		BB	2024	566
2	4.200		BB	184815	13313
3	4.706		BV	12552	2028
4	4.943		VV	14911	1327
5	5.144		VV	10605	1232
6	5.252		VV	13518	2501
7	5.389		VV	49040	4114
8	5.765		VB	40498	3704
9	6.167		BB	781	180
10	6.619		BV	6747	701
11	6.815		VB	74981	9489
12	7.155		BV	436	116
13	7.325		VV	3792	412
14	7.591		VV	52980	4600
15	8.337		VV	3218	377
16	8.511		VV	6376	730
17	8.878		VV	51784	6789
18	9.517		VV	87992	5926
19	9.952		VV	10349	1148
20	10.244		VV	57052	5657
21	10.627		VB	1402	187
22	10.832		BB	853	163
23	11.083		BB	5435	600
24	11.758		BV	22066	2161
25	11.982		VV	76954	8326
26	12.253		VB	35117	4054